

REMARKS

Prior to examination, please consider the above amendments.

The specification has been amended to correct an obvious error. The values for λ_5 were inadvertently exchanged for λ_{80} . Those of ordinary skill are aware that in optical glasses, λ_{80} is always greater than λ_5 . This is confirmed by the data in Figs. 2 which shows the correct values for λ_5 and λ_{80} .

Claim 11 has been amended to incorporate the subject matter of claim 65. Claims 111, 115 and 116 have been amended and are now directed to a glass preform for precision press-molding. Support for the changes to claims 111, 115 and 116 may be found, for example, in paragraph [0001] and on page 10, lines 12-15.

New claims 117-216 have been added. Support for the new claim 117 may be found in original claims 15, 18 and 26 and on page 14, line 5 of the specification (2-40% Wo_3). Support for new claim 118 may be found in original claims 16, 19 and 27 and on page 14, line 5 of the specification. Support for new claims 119 and 120 may be found in original claims 18 and 19. Claims 121 and 123 find support in paragraph [0027] of the specification. Claims 122 and 124 find support in paragraph [0029]. With respect to claims 125-216, Applicants have provided the attached chart which set forth specific locations in the specification and original claims which provide support for the subject matter of these claims.

Upon entry of the present amendments, the currently pending claims in this application are as follows: 1-3, 11, 12, 17-19, 59-63, 70-94, and 101-216. Claims 102-104 and 107 stand withdrawn from further consideration on the merits.

According to the copy of the Advisory Action received March 2, 2004, claims 111-116 were rejected under 35 U.S.C. §103(a) as obvious over U.S. Patent No.

4,115,131 to Ishibashi et al. for the reasons given in the Final Rejection mailed July 15, 2003. Reconsideration of this rejection is respectfully requested in view of the above amendments and for at least the following reasons.

Ishibashi et al. '131 fail to disclose or suggest a glass preform for use in precision press-molding. The claimed glass preforms are not simple optical glass materials such as that disclosed by Ishibashi et al. '131. Thus, the glass preforms for precision press-molding of the present invention form an optically functioning surface, such as a surface of a lens, without post-processing after press-molding. It is well-known that an optically functioning surface of an optical element such as a lens must be formed to have a shape as designed; otherwise, it does not properly function as an optical element. An optically functioning surface is formed by press-molding a glass preform of the present invention, instead of the post-processing necessary to be carried out on a molded glass of Ishibashi et al. '131 to provide an optically functioning surface.

The surface of a glass preform for precision press-molding must be free from defects, such as scratches, striae, and devitrification. Such defects would remain on the surface of the final optical products, if present, since no post-processing is formed on the optically functioning surface of the press-molded glass preform. Further, a glass preform for precision press-molding must have precisely the same weight as the optical product desired to be formed and a glass preform for precision press-molding must have a shape in accordance with the final shape of the desired product. Thus, the presently claimed glass preforms for precision press-molding are clearly distinguished from the simple molded products of Ishibashi et al. '131.

For at least these reasons, the §103(a) rejection of claims 111-116 over Ishibashi et al. '131 should be reconsidered and withdrawn. Such action is earnestly solicited.

Applicants are concurrently filing an Information Disclosure Statement and attached PTO-1449 form citing JP 7-97234. A copy of the document is enclosed together with an English abstract provided by the Japanese Patent Office and tables in which glass compositions expressed by wt% and mol% of examples 1 to 30 and comparative examples 1 to 3 are provided. These tables facilitate comparison between the glass compositions of the present invention and those of the cited document. Comparative Examples 4-11 of the document are not included since the glasses of these Examples are not phosphate glasses and therefore, are not believed to be relevant.

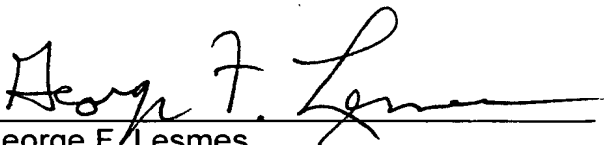
If there are any questions concerning this paper or the application in general, the Examiner is invited to telephone the undersigned at (703) 838-6683 at her earliest convenience.

Respectfully submitted,

BURNS, DOANE, SWECKER & MATHIS, L.L.P.

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By:


George F. Lesmes
Registration No. 19,995

P.O. Box 1404
Alexandria, Virginia 22313-1404
(703) 836-6620

New Claim	Base Claim	Additional features
125	4	[0046] on page 19, [0024] on page 13, [0029] on page 16, [0027] on page 14
126	5	[0046] on page 19, [0024] on page 13, [0029] on page 16, [0027] on page 14
127	6	[0046] on page 19, [0024] on page 13, [0029] on page 16
128	6	[0073] on page 28, [0046] on page 19, [0024] on page 13, [0029] on page 16
129	6	[0046] on page 19, [0024] on page 13, [0029] on page 16, [0027] on page 14
130	7	[0046] on page 19, [0024] on page 13, [0029] on page 16, [0027] on page 14
131	8	[0046] on page 19, [0024] on page 13, [0029] on page 16, [0027] on page 14
132	9	[0046] on page 19, [0024] on page 13, [0029] on page 16
133	9	[0073] on page 28, [0046] on page 19, [0024] on page 13, [0029] on page 16
134	9	[0073] on page 28, [0046] on page 19, [0024] on page 13, [0029] on page 16, [0027] on page 14
135	10 & 11	[0046] on page 19, [0024] on page 13, [0029] on page 16, [0027] on page 14
136	13	[0046] on page 19, [0024] on page 13, [0027] on page 14
137	15	[0060] on page 23, [0029] on page 16, [0027] on page 14, [0046] on page 19
138	16	[0060] on page 23, [0029] on page 16, [0027] on page 14, [0046] on page 19
139	18	[0062] on page 23
140	19	[0062] on page 23
141-156		Precision press molding glass preform of claims 125-140
157		Precision press molding glass preform of claims 125 wherein Li ₂ O and Na ₂ O are essential components, WO ₃ is an optional component, and GeO ₂ is not mentioned.
158		Precision press molding glass preform of claims 126 wherein Li ₂ O and Na ₂ O are essential components, WO ₃ is an optional component, and GeO ₂ is not mentioned.
159		Precision press molding glass preform of claim 127 wherein Li ₂ O and Na ₂ O are essential components, WO ₃ is an optional component, and GeO ₂ is not mentioned.
160		In Claim 159, a liquid phase temperature is further defined.
161		Based on [0027] on page 14, the content of K ₂ O is defined as 1-15 percent in claim 159.
162		Precision press molding glass preform of claim 130 wherein Li ₂ O and Na ₂ O are essential components, WO ₃ is an optional component, and GeO ₂ is not mentioned.

New Claim	Base Claim	Additional features
163		Precision press molding glass preform of claim 131 wherein WO_3 is an optional component, and GeO_2 is not mentioned.
164		Precision press molding glass preform of claim 132 wherein WO_3 is an optional component, and GeO_2 is not mentioned.
165		In Claim 164, a liquid phase temperature is further defined.
166		Based on [0027] on page 14, the content of K_2O is defined as 1-15 percent in claim 165.
167		Precision press molding glass preform of claim 135 wherein Li_2O and Na_2O are essential components, WO_3 is an optional component, and GeO_2 is not mentioned.
168		Precision press molding glass preform of claim 136 wherein Li_2O and Na_2O are essential components, and GeO_2 is not mentioned. Based on [0017] on page 11 and originally filed claims 30 to 33, a refractive index and an Abbé number are further defined.
169		Precision press molding glass preform of claim 137 wherein Li_2O and Na_2O are essential components, and GeO_2 is not mentioned.
170		Precision press molding glass preform of claim 138 wherein GeO_2 is not mentioned.
171-186		Optical part of claims 125-140
187-216		Optical part prepared by precisely press molding the precision press molding glass preform of claims 141 to 170.